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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,243	02/06/2002	Bryan Spiess	A490-003	8499

7590 04/17/2003

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 04/17/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

N.K.

Office Action Summary	Application No. 10/068,243	Applicant(s) SPIESS, BRYAN	
	Examiner Marc Jimenez	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claims 6** is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation “homogenous” roller added to claim 6 constitutes new matter. Although there is support in the original disclosure for a “monolithic roll”, there is no support in the original disclosure for a homogenous roller. Homogenous means “of the same or a similar kind or nature”. Homogenous, therefore, could have multiple layers of the same material or could include multiple layers of different material to make a uniform structure (ie. same/homogenous thickness), whereas monolithic is only one layer.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. **Claims 7, 10, and 13** are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson et al. (4,203,509).

Thompson et al. teach an aircraft roller (fig. 1) comprising a cylindrical roller body 17, the roller body 17, having a length and a diameter, the roller 17 also having an aperture extending along and through the center of the roller 17, the roller 17 fabricated from a polymeric material (col. 2, lines 12-15 and col. 3, lines 21-30, “super-tough nylon”).

Regarding the limitations “the polymer having a burn rate of less than 4.0 inches per minute”, it is noted that Thompson et al. inherently teaches this thermal property. Thompson et al. teach that the polymer used in the roller is made from “nylon” (see col. 2, lines 12-15 and col. 3, lines 21-30). On page 5, second full paragraph of applicant’s specification, applicant describes that suitable polymers include nylon among with other polymers. Therefore, since both the prior art and the applicant uses “nylon”, it is inherent that Thompson et al. inherently teaches the claimed thermal properties of the polymer. Applicant has not provided the physical and thermal properties of each of the polymer materials described in the specification at page 5, second full paragraph, therefore, it is understood that all of the described polymer materials on page 5, second full paragraph of applicant’s specification meet the claimed “burn rate of less than 4.0 inches per minute, a compressibility strength of at least 200 psi, impact strength of at least 0.5 (ft. lbs.)/inch, and a flexural strength of at least 20 psi”, with “nylon” as taught by Thompson et al. being among the polymer materials. Therefore, Thompson et al. also inherently teach the limitations of claim 13.

Regarding claim 10, Thompson et al. teach bearings 13.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. (4,203,509) in view of Rowles (6,354,424).

Thompson et al. teach an aircraft roller system (col. 1, line 6) comprising: a roller (fig. 1) adapted to communicate cargo into and out of an aircraft (col. 1, line 6), the roller (fig. 1) being cylindrical in shape and having a length and diameter, the roller having a center aperture extending through the length of the roller and the roller being fabricated from a polymer (col. 2, lines 12-15 and col. 3, lines 21-30, "super-tough nylon").

Regarding the limitations "the polymer having a burn rate of less than 4.0 inches per minute, a compressibility strength of at least 200 psi, impact strength of at least 0.5 (ft. lbs.)/inch, and a flexural strength of at least 20 psi", it is noted that Thompson et al. inherently teaches these physical and thermal properties. Thompson et al. teach that the polymer used in the roller is made from "nylon" (see col. 2, lines 12-15 and col. 3, lines 21-30). On page 5, second full paragraph of applicant's specification, applicant describes that suitable polymers include nylon among with other polymers. Therefore, since both the prior art and the applicant uses "nylon", it is inherent that Thompson et al. inherently teaches the claimed physical and thermal properties of

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the polymer. Applicant has not provided the physical and thermal properties of each of the polymer materials described in the specification at page 5, second full paragraph, therefore, it is understood that all of the described polymer materials on page 5, second full paragraph of applicant's specification meet the claimed "burn rate of less than 4.0 inches per minute, a compressibility strength of at least 200 psi, impact strength of at least 0.5 (ft. lbs.)/inch, and a flexural strength of at least 20 psi", with "nylon" as taught by Thompson et al. being among the polymer materials.

Thompson et al. teach the invention cited with the exception of having a shaft in the form of an elongate cylinder having a diameter sized to rotatably fit within the central aperture of the roller, the shaft further having a means for retention located upon the shaft ends and an elongate "U" shaped roller rack, the roller rack sized to extend the length of the roller and having a pair of upwardly extending ends located adjacent the ends of the roller, each end having an aperture sized to receive the respective shaft end and locate the shaft in a fixed location.

Rowles teaches an aircraft rack comprising a shaft 12 in the form of an elongate cylinder having a diameter sized to rotatably fit within the central aperture of the roller 11, the shaft 12 further having a means for retention 14,12a located upon the shaft ends and an elongate "U" shaped roller rack 13, the roller rack 13 sized to extend the length of the roller 11 and having a pair of upwardly extending ends 13 located adjacent the ends of the roller 11, each end 13 having an aperture sized to receive the respective shaft end 12 and locate the shaft 12 in a fixed location.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Thompson et al. with a shaft in the form of an elongate cylinder having a diameter sized to rotatably fit within the central aperture of the roller, the shaft

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further having a means for retention located upon the shaft ends and an elongate "U" shaped roller rack, the roller rack sized to extend the length of the roller and having a pair of upwardly extending ends located adjacent the ends of the roller, each end having an aperture sized to receive the respective shaft end and locate the shaft in a fixed location, in light of the teachings of Rowles, in order to securely fasten the roller to the aircraft floor.

Thompson et al./Rowles teach the invention cited with the exception of using the claimed polymers in claims 2 and 3.

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed polymers because applicant has not disclosed that the claimed polymers provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the nylon polymer taught by Thompson et al. or the claimed polymers, because either type of polymer perform the same function of providing a roller surface that has the desired compressibility and strength. Furthermore, in applicant's specification, at page 5, lines 8-13, there is a listing of different polymers and all are suitable for the rollers. There is no indication that one polymer is better than another.

Regarding claim 4, Rowles teaches bushings (see fig. 2 in vicinity of lead line 12).

Regarding claim 5, Rowles teaches a pair of bearings 29.

Regarding claim 6, Thompson et al. teach a homogenous roller because the outer and inner layers 17,10 are both cylindrical in shape. The inner and outer layers 17,10 are therefore homogenous in shape. Also, the inner and outer layers are homogenous in thickness.

7. **Claims 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. in view of Rowles.

Thompson et al. teach the invention cited with the exception of having bushings.

Rowles teaches bushings (fig. 2).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Thompson et al. with bushings, in light of the teachings of Rowles, in order to provide better support for the roll.

8. **Claims 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al.

Thompson et al. teach the invention cited with the exception of using the claimed polymers in claims 11 and 12.

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have used the claimed polymers because applicant has not disclosed that the claimed polymers provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally as well with the nylon polymer taught by Thompson et al. or the claimed polymers, because either type of polymer perform the same function of providing a roller surface that has the desired compressibility and strength. Furthermore, in applicant's specification, at page 5, lines 8-13, there is a listing of different polymers and all are suitable for the rollers. There is no indication that one polymer is better than another.

Response to Arguments

9. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

10. The joint declaration of Bryant Spiess and John Dallum filed 3/19/03 has been fully considered. It is stated that all the rollers that have been seen were made from metal and that it is believed that the plastic boat rollers would not survive as an aircraft roller. However, there are numerous rollers made from plastic as shown by Thompson et al., Rowles, and Gibson used in the aircraft cargo art. Furthermore, since the prior art shows that it is known to use plastic rollers in aircraft, rollers that are made of similar materials and used for other purposes such as a boat roller could easily be used in aircraft as well as long as the plastic materials used have similar thermal and physical requirements to the ones used in aircraft rollers. For examples, rollers such as the ones taught by Ledingham (6,516,933) and Kornylak (4,681,203), although not specifically used for aircraft cargo applications, are made of monolithic nylon rollers and could easily be used for aircraft cargo applications because it is already known to use nylon rollers in aircraft cargo applications as taught by Thompson et al. (4,203,509). Thompson et al. teach that nylon is a material suitable for aircraft rollers.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Interviews After Final

12. Applicant note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing) to clarify issues for appeal requiring only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

Contact Information

13. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

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If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to

CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Friday, between 5:30 am- 2:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
Certificates of Correction	(703) 305-8309
Drawing Corrections/Draftsman	(703) 305-8404/8335
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Terminal Disclaimers	(703) 305-8408
PCT Help Desk	(703) 305-3257

If the information desired is not provided above, or a number has been changed, please call the general information help line below.

Information Help line	1-800-786-9199
Internet PTO-Home Page	http://www.uspto.gov/

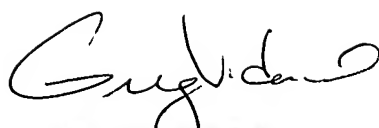
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MJ

April 14, 2005


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700